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Issue 29



Designer: Sharon Oegerle

Editor: Lola Olsen

CEOS/IDN NEWSLETTER

Canadian Space Agency to Host WGISS-30/WGCV-32 in Montréal, September 13-17, 2010

Dr. Satish K. Srivastava, CSA

About the Canadian Space Agency

Established in 1989, the mandate of the Canadian Space Agency (CSA) is to promote the peaceful use and development of space, to advance the knowledge of space through science, and to ensure that space science and technology provide social and economic benefits for Canadians. The CSA directs its resources and activities through three main program activities: Space Utilization, Space Exploration, and Space Science & Technology. By leveraging international cooperation, the CSA generates world-class scientific research and industrial development for the benefit of humanity.

Visit the Canadian Space Agency:

<http://www.asc-csa.gc.ca/eng/default.asp>

CEOS-WGISS CSA representative: Allan Hollinger

(allan.hollinger@asc-csa.gc.ca)

WGISS-30 CSA contact: Darlene de la Fosse

(Darlene.DeLaFosse@asc-csa.gc.ca)



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Message from the WGISS Chairman

Dr. Pakhorn Apaphant, GISTDA

The WGISS-29 meeting was only three months ago and our next meeting is less than a month away. I am personally very excited to chair the next WGISS plenary which will be held at the Canadian Space Agency in Montreal, Canada. Montréal is one of my most favorite places to visit, and I have not been there in more than 15 years. Secondly, Dr. Satish Srivastava, our host, has been a good friend since 1999. He was in the group I worked with after I graduated. Thirdly, I would consider that this meeting is part of one of the largest CEOS events in 2010. We will start with a joint meeting with the WGCV, end with an LSI Constellation Workshop, and be back the following week with the Strategic Implementation Team (SIT) technical workshop. I trust that our September 2010 meeting will be a good opportunity for us to share and exchange ideas covering many different topics with our CEOS colleagues.



During the past months, I have observed that WGISS members, especially the WADC Project, have been very active. They are developing an important paper regarding seamless data discovery and access to remote sensing data. They are also working in cooperation with WGCV to provide quality information to the community portals. WADC is considered the primary group developing the WGISS article for the CEOS high profile document. In addition, there will be a few newcomers to the meeting from the active CEOS members such as the National Remote Sensing Center of China (NRSCC) and European Space Agency (ESA).

For the WGISS-30, we have prepared one and half days for the joint meeting with WGCV. Together, we proposed to discuss how to make use of Quality Assurance for EOS (QA4EO) for Satellite Information Systems. The working groups may want to develop case studies to demonstrate incorporating quality into the Land Surface Imaging (LSI) and Atmospheric Composition (AC) portals, as has been actively discussed in WADC teleconferences. We also wish to work with WGCV on the support for Digital Elevation Model (DEM) Interoperability. Wyn, as the expert on this topic, will propose that WGISS agencies provide access to their DEM validation information and provide links to their own DEM information services.

The upcoming WGISS meeting in Canada will highlight John Faundeen's presentation of the survey results from the group establishment. ESRIN/ESA will give a presentation about the GEO LTDP. Our plenary week will end with an interesting workshop on Land Surface Imaging, led by Tom Holm of USGS. I recall that LSI was the main topic for our previous joint meeting with WGCV in Sanya, China. The LSI work is a very good example of the WGCV-WGISS cooperation during the last few years. Those who are also part of the Strategic Implementation Team (SIT), will stay over the weekend to continue with the SIT technical meeting. I am delighted to inform you that the WADC project falls under the interest of SIT. Ken McDonald and Yonsook Enloe will lead a session at the workshop to provide updates and discussion.

(Continued)

Lastly, Natalia Kussul has successfully led the Technology Subgroup for two years. Terence Van Zyl will step up to lead the subgroup after the meeting. I wish to take this opportunity to invite WGISS members to volunteer to serve as the vice chair for this subgroup. The person will need to be a vice chair for two years and automatically step up as the subgroup chair for two additional years. Although this meeting is my second one as the WGISS chair, I realize that much remains to be done.

Data Management in Center for Earth Observations and Digital Earth (CEODE)

Dr. Qin Dai, CAS



Dr. Qin Dai is an associate professor in the Data Management Division, Spatial Data Center, Center of Earth Observation and Digital Earth, Chinese Academy of Sciences (CAS). Personal research interests include remote sensing data management and remote sensing information extraction.

The goal of the Data Management Division is to provide technical support for management, storage, sharing and distribution of various remote-sensing data from satellites and airplanes. The major task is to develop and maintain the management and service platforms of remote sensing data, which manage the multi-temporal, multi-regional, and multi-levels of satellite and aerial data acquired and produced by CEODE. In addition, the task provides the data queries, browse, exchange, distribution, and sharing of services for internet users.

Redesign of CEOS Portals

Monica Holland, CEOS/IDN

The IDN site (<http://idn.ceos.org>) features several portals that are accessible from the home page. In an effort to uniquely identify the CEOS portals, they have been redesigned. The new layout will include a header that identifies each portal as a CEOS International Directory Network portal and will include a color scheme that is consistent with the IDN site. Comments are welcome on the sample portal redesign available below.



CEOS International Directory Network Portals



A Global Change Master Directory Portal for the
United Nations Earth Science Data

Find Data Sets by Topic:

 <p>Agriculture soils, agricultural plant science...</p>	 <p>Land Surface soils, topography ...</p>	<div>Data Set Text Search <input type="text"/> Go Map/Date Search Search tips </div>
 <p>Atmosphere atmospheric temperature, atmospheric winds...</p>	 <p>Oceans ocean temperature, ocean chemistry ...</p>	
 <p>Biological Classification animals/vertebrates, animals/invertebrates...</p>	 <p>Paleoclimate ocean/lake records, land records ...</p>	
 <p>Biosphere ecological dynamics, aquatic ecosystems...</p>	 <p>Solid Earth rocks/minerals, geomagnetism ...</p>	
 <p>Climate Indicators drought/precipitation indices ...</p>	 <p>Spectral Engineering visible wavelengths, infrared wavelengths ...</p>	
 <p>Cryosphere snow/ice, glaciers/ice sheets...</p>	 <p>Terrestrial Hydrosphere surface water, water quality/water chemistry ...</p>	
 <p>Human Dimensions environmental impacts, boundaries...</p>	 <p>Data Centers - Locations - Instruments/Sensors - Platforms/Sources - Projects</p>	

 [View all IDN portals](#)

IDN Portals maintained by [Global Change Master Directory \(GCMD\)](#)



CEOS IDN Interest Group Chair: Lola Olsen
CEOS IDN Website: <http://idn.ceos.org>
INTEROP forum: ceos-idn-interop@lists.nasa.gov
[Contact IDN User Support for assistance](#)

Near Real-Time Data Portal

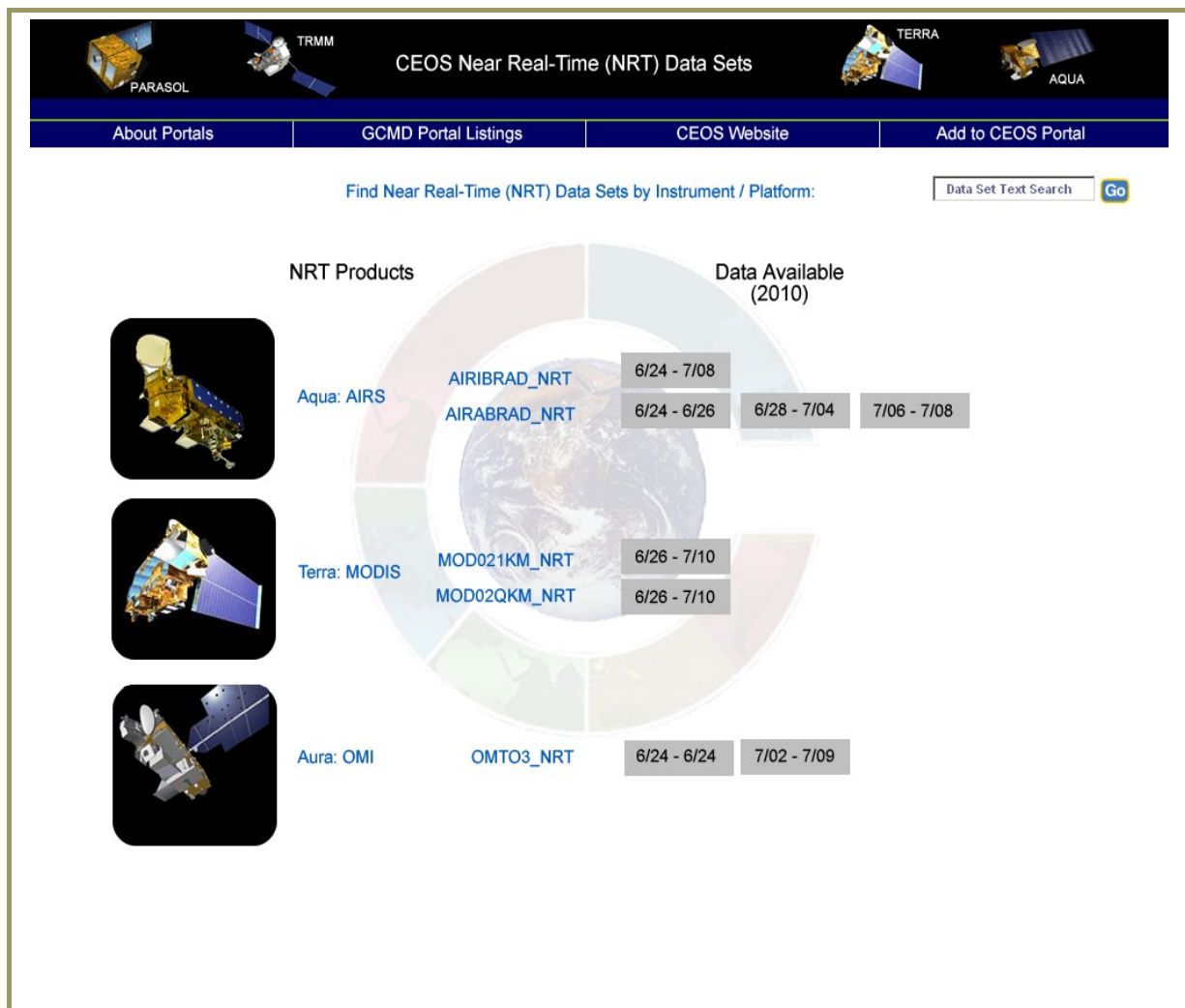
IDN Representatives: Michael Morahan, Lola Olsen, and Monica Holland

The purpose of the Near Real-Time (NRT) data site is to provide potential users of these data a quick and dependable location for data discovery. The CEOS IDN has identified over 100 data sets for the site that would be valuable in the event of natural disasters or disease outbreaks.

The site features:

- Images of data set platforms and a link to associated platform descriptions, instruments, and related data products provided.
- "Mouse overs" available for the NRT product Entry_ID to access the data set description and/or link to the data.
- Data accessibility date range display to allow quick access to the current data.

[The CEOS Near Real-Time Data Set site is not yet accessible to the public. It will be released as a beta version in the coming months. If you wish to offer a Near Real-Time data set that is not identified by the CEOS IDN (<http://idn.ceos.org/>) and would like to have it listed, please send a request to Michael.P.Morahan@nasa.gov]



CEOS/IDN (GCMD) Science User's Working Group (UWG)

Dr. Wyn Cudlip, CEOS/WGISS Representative, (GeoSeren)

The CEOS/IDN/Global Change Master Directory (GCMD) Science User Working Group (UWG) met on June 2-4, 2010 on the campus of NASA's Goddard Space Flight Center. The GCMD forms the basis of the CEOS International Directory Network (IDN) and its associated user-specific portals. At the meeting, progress was reported, with particular reference to implementing changes requested through the previous UWG Report. The staff offered insights into ongoing developments in terms of their mission, user interface, underlying data base structure and future plans. Substantial contributions were made by guests, illuminating in particular NASA-GCMD functions and relationships and the close cooperation with the Australian Antarctic Data Centre.

Overall, the UWG was very impressed by the current state of the IDN/GCMD and its accomplishments over the past three years. The directory offers a massive resource in terms of metadata descriptions, currently totaling 22,000 data sets, and it is arguably the world's leader in establishing a hierarchical set of keywords for data discovery. The GCMD also provides up-to-date system software and has demonstrated nimble adoption of state-of-the-art technologies where appropriate.



Left to Right: Dr. Steve Wharton, **Dr. Wyn Cudlip**, Mr. Dave Toll, Dr. Benno Blumenthal, and Mr. Andrew Mitchell

While the UWG is very impressed by the performance and service provided by the GCMD, a broad range of growth opportunities remain, in terms of external relations, internal function, and expansion of holdings, as well as the improvement of the user experience.

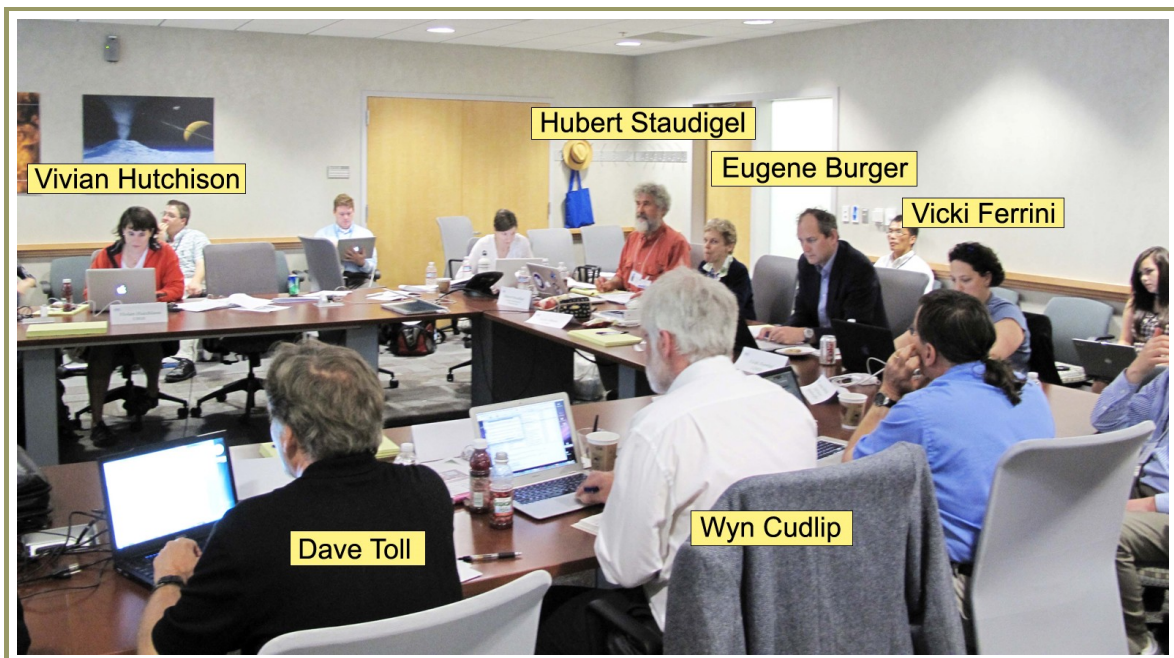
The UWG meetings and the resulting reports typically result in a large number of suggestions and recommendations, with the risk that key recommendations become swamped by the detail. This time, the UWG Report offers a "Recommendation Synthesis" at the end of each Section. The main recommendations relate to providing (1) guidance on future direction and development, (2) assistance in assessing user and data provider trends, (3) approaches to enhancing the visibility of the GCMD - especially methods to reach potential users and obtain their feedback, (4) guidance on strategies to enhance users' abilities to locate data, and (5) ongoing information concerning new data sets, new resources, and technological innovations.

(Continued)

The UWG Report and its recommendations still need to be finalized; but clearly the overarching thrust for further development of the GCMD should be to continue to develop its interactions with outside bodies; for example, with:

- NASA HQ: to obtain policy support for encouraging DIF submissions
- ISO19115 Revision Working Group: to improve compatibility with the DIF
- Interdisciplinary groups focused on semantics – to improve search quality
- Other metadata initiatives: to improve interoperability among diverse systems
- Users: to develop “user stories” to demonstrate the use and value of GCMD holdings
- Other agencies working in the environmental sciences for the further development of GCMD keywords into new areas including geology and biology/ecology

The UWG would also like to see further work carried out on the “GCMD Strategic Plan” and “Governance” documents to ensure the long-term stability and continued leadership in international data discovery.



The UWG is chaired by Dr. Hubert Staudigel, Scripps Institution of Oceanography. Other members include Dr. Vicki Ferrini, Lamont Doherty Labs; Mr. David Toll, hydrologist at NASA/Goddard; Mr. Eugene Burger, NOAA Pacific Marine Environmental Laboratory (PMEL); Dr. Benno Blumenthal, International Research Institute for Climate and Society, Earth Institute at Columbia University, Lamont Doherty Earth Observatory (LDEO); Ms. Vivian Hutchison, U.S. Geological Survey (BRD); and Dr. Wyn Cudlip (GeoSeren Ltd.), representing the UK Space Agency (and currently serving the interests of CEOS WGISS). We also appreciate the participation of former contract task lead, Gene Major; former science coordinator, John Scialdone; long term Antarctic collaborator, Dave Connell, and other guests for their valuable participation.

WGISS Data Management Interest Group

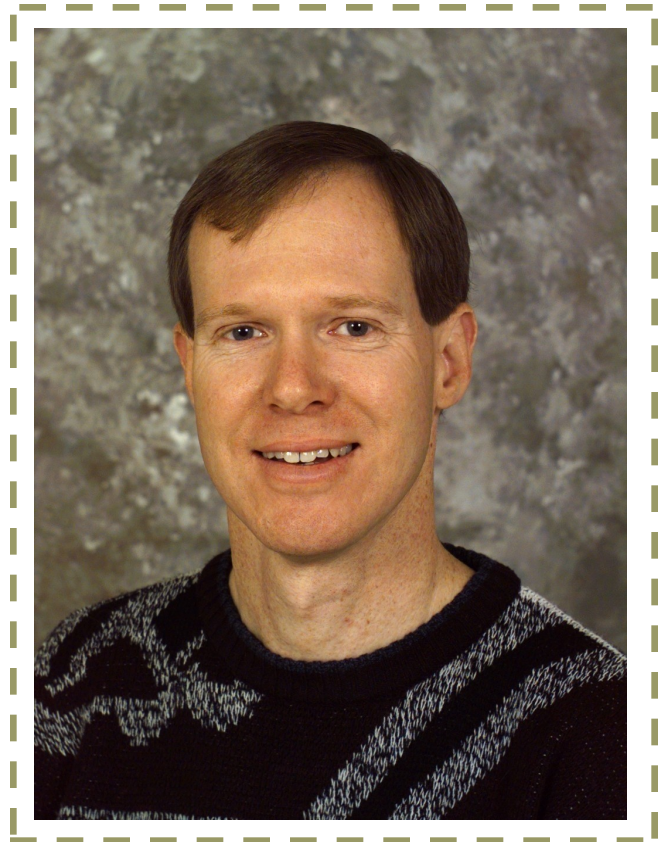
John Faundeen, USGS

The Committee on Earth Observation Satellites (CEOS) Working Group on Information Systems and Services (WGISS) participants have been discussing the important role that data management plays in the ever-increasing volumes of Earth observation images. Issues related to preservation, media obsolescence, data lifecycle, and archiving were discussed in several WGISS meetings. The most recent Working Group meeting held in Bonn, Germany in May of 2010 resulted in an action to survey WGISS members and determine if a sufficient number of participants desire the creation and support for a Data Management Interest Group. Such a group had been convened previously in the Working Group, but was disbanded several years ago.

In order to gauge if the subject area matches participants' current needs, a brief survey was constructed. The first set of questions requested the identification of the survey respondent and their organization. The next set asked for the organizational interest level in order to form a Data Management group. Specific topics, such as an interest group might address were listed with examples: including long-term archiving strategies, archive media, data formats, data preservation environmental standards, security best practices, data recovery, and data lifecycle concepts.

Years ago the WGISS sponsored a data rescue activity that served agencies working with the United Nations Environment Programme (UNEP). Respondents were asked if they would be willing to offer such a service again.

Data management is a timely topic with several groups focusing considerable resources towards it. The Australian Department of Innovation, Industry, Science and Research has a \$50 million Super Science Research Data Storage Infrastructure (RDSI) project. The U.S. Library of Congress convened a "Scientific Data Management for Government Agencies" Workshop this past June. The European Space Agency, under the European Long Term Data Preservation programme, is sponsoring a Long Term Data Study on new technologies. The final results of the survey will be presented at the WGISS meeting in Montreal, Canada September 13-17, 2010. The Working Group will then decide whether there is enough support to establish the Data Management Interest Group.



Welcome back, John!

Montréal in September

Sharon Oegerle, SSAI

Montréal, known as “Canada’s Cultural Capital”, is one of the most unique places in the world. As a Francophone capital in the province of Québec, it is the world’s second largest French-speaking city in the world after Paris, France. Recognized by UNESCO, Montréal is a hub of rich technological, artistic, and cultural advances. There are many things to do in the city, ranging from the opera to a hockey game!



Being of Francophone culture, Montréal is also quite diverse in the categories of food, music, and art. Montréal is composed of 11 very diverse neighborhoods, boasting their own personal flavor. Smoked meats, homemade bagels, and hotdogs are popular favorites for traditional street food. However, you can find just about any type of cuisine in any one of the neighborhoods!

Montréal is well known for its architecture. Many industrial, historical, religious, and avant-garde designs can be found around the city. Notable buildings, such as the Notre-Dame de Montréal Basilica, Bonsecours Market (shown above), and the many impressive Canadian banks on St. James Street (Rue Saint Jacques) attract tourists and locals alike! Saint Joseph's Oratory, as well as the Geodesic Dome or the Montréal Biosphere (shown below), were completed for the 1967 Universal Exposition (Expo '67). All are wonderful tourist destinations to visit during your free time!



CEOS WGISS Integrated Catalog (CWIC)

Martin Yapur (NOAA), CWIC Spokesperson



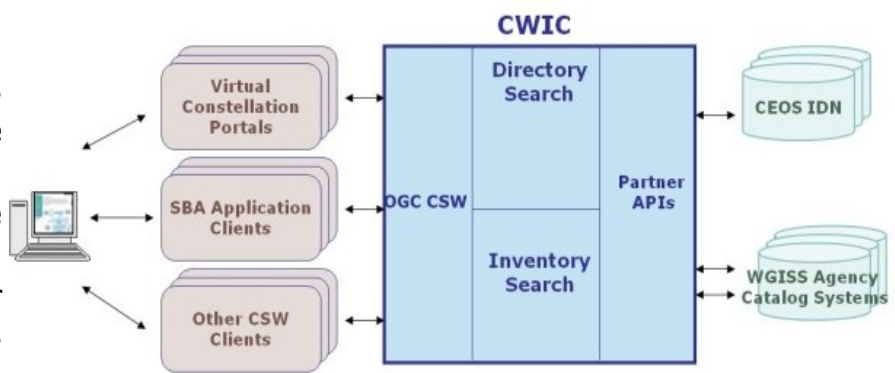
As defined in the 2009-2011 GEO Work Plan (the GEO Sub-task DA-09-01b - Data, Metadata, and Product Harmonization) calls to facilitate the development, availability, and access of data, metadata, and products commonly required across diverse societal benefit areas. The task team, under the leadership of Ken McDonald (NOAA), is working with the CEOS-WGISS Architecture Data Contributions (WADC) project, as well as the broader GEO community, to harmonize on a common search criteria for inventory/product searches. The WADC will use the IDN directory search criteria for collection discovery. As a result, the WADC project with members from NOAA, NASA, USGS, and a NOAA

implementation team at George Mason University have initiated the development of the **CEOS WGISS Integrated Catalog**, also known as "CWIC".

CWIC is rapidly gaining the attention among client and data partners in the US and is being seriously considered by representatives from China, INPE, and Europe who have expressed their interest in participating. Lyndon Oleson, a long time member of the WGISS community and a well respected data architect, stated at the last WGISS meeting in Bonn, that "CWIC will be a leader in defining and demonstrating a common or standard set of interfaces that can be used to facilitate access to partner satellite data holdings by many EO clients/users".

In essence, CWIC will act as middleware between the WGISS agency data partners and user interface client partners by translating between the GEO-supported OGC CSW protocol to the catalog standards used by the partner data systems. Societal Benefit Area (SBA) portals and virtual constellation portals will send search requests for satellite data to CWIC, which will send the directory/collection searches to the CEOS IDN and distribute the inventory searches using the WGISS common search criteria to partner data systems.

By implementing one gateway to CWIC, CWIC data partner sites will be searchable and reachable by multiple client portals. The task team is anticipating that CWIC will become the CEOS community catalog for satellite data and be one of its most significant contributions to GEO. We encourage others in the community to join in this effort. For more information on the CEOS WGISS integrated Catalog, please visit: <http://www.ceos.org/wadc>



CEOS/IDN Science Coordinator Participates in SCADM Meeting

Stephanie Grebas, IDN

The second meeting of the Standing Committee on Antarctic Data Management (SCADM) was held from July 31 – August 1st in Buenos Aires, Argentina, in conjunction with the Standing Committee on Antarctic Geographic Information (SC-AGI). This meeting provided an opportunity to demonstrate the current functionality of the Antarctic Master Directory (AMD) and to give representatives from each National Antarctic Data Center (NADC) an update on the progress of their collaborations with the IDN.

SCADM has been very active over the last year in its collaboration with the IDN. There are now more than 7,000 metadata records in the AMD. Two new portals have also been created over the last year in collaboration with SCADM: one for the Ukrainian Antarctic National Program and one for the Antarctic Biodiversity Information Facility (ANTABIF). After a presentation which included the highlights of SCADM's collaboration with the IDN over the past year, representatives from each NADC gave presentations on the status of their data centers in relation to their national Antarctic Programs.

More information can be found on the SCADM website (<http://scadm.scar.org>), which will also hold forthcoming documentation and presentations from the SCADM-2 meeting. The SCADM Data and Information Strategy (DIMS) and associated Implementation Plan, which were discussed extensively during the meeting, are also available on the website. With the integral partnership shared between SCADM and the IDN, this meeting served as an important step in continuing the success of this collaboration and working towards common goals.



Image of the Obelisk in Buenos Aires, Argentina (Obelisco de Buenos Aires), constructed in 1936 to commemorate the city's 400th anniversary.

Montréal French Lesson!

Sharon Oegerle, SSAI

Hello, My name is...
(Bonjour, Je m'appelle...)

I am a scientist.
(Je suis une scientifique.)

I am in Montréal for a Conference.
(Je suis à Montréal pour une conférence.)

Scientific Data, Metadata
(Donnée scientifique, Metadonnée)

How much is it?
(C'est combien?)

Excuse me, Please, Thank you, Goodbye
(Pardon, S'il vous plaît, Merci, Au revoir)

Helpful Canadian Facts B4-U-GO

- \$1USD = \$1.05CD
- Price of a taxi to the airport: \$38CD
- 5% sales tax, 7.5% provincial tax
- Montréal is on the Eastern Time Zone (EDT).
- Average September Temp: 15.6°C/60°F
- Official language of Québec is French.
- A 15% tip is expected for travel and dining.
- Annual beer consumption: 77L per person over age 15.
- 250,000 people internationally immigrate to Canada annually.



IDN Session Schedule

- ♦ Newsletter and Future Plans:
- Report from the June 2010 Science Users' Working Group Meeting (Dr. Cudlip)
- IDN Content and Usage Status
- MD 9.8.2: ISO Conformance for Publications/References
 - Quality Field
 - Use of DOI
- Redesign of CEOS Portals
- Progress on the Near Real-Time Portal
- Climate Diagnostics Directory Progress
- Status on Health Portals
- Status of CSW/Use for Distributed Directory Search
- Role in CWIC and WADC
- Progress on the "Governance" document
- Upcoming Software Release MD 9.8.3